## **Description of Additional Supplementary Files**

File Name: Supplementary Movie 1

Description: **Related to Figure 1. Validation of AAV.hSyn.2mtYC3.6 in vivo. KCI** was topically applied to a C57BL/6J mouse brain expressing AAV.hSyn.2mtYC3.6 in the cortex. KCl increased mitochondrial Ca2+ in the recorded neurons.